

ITEM X – MISCELLANEOUS

10.01 Conformity With Plans

- (a) All Work shall conform to the lines, grades, cross-sections, details and dimensions shown on the Plans or listed in the Specifications. There shall be no deviation from the Plans or Specifications unless authorized by the ENGINEER.

10.02 Easement Plats and Special Provisions Detail Sheets

- (a) The CONTRACTOR is advised to review the easement plat for each parcel on this project, as applicable. The plats show the specific metes and bounds of the easement for each parcel. Copies of the plats will be made available, if not included in these Contract documents.
- (b) The CONTRACTOR shall review each Special Provision Detail Sheet attached herewith. These sheets describe any special requirements agreed to by the DISTRICT during easement negotiations with the individual property owner. The CONTRACTOR shall assume all responsibilities and liabilities accepted by the DISTRICT described on these sheets, except those provisions which involve financial considerations (payments) from DISTRICT to a property owner.
- (c) Unless specifically listed in the Bid Schedule, all work items listed within the Special Provisions Detail Sheets shall be incidental to the Work, and no extra payment will be made therefore.

10.03 Property Corner Markers

- (a) Property corner markers shall be protected by the CONTRACTOR. Property corner markers removed or disturbed by construction shall be replaced by a N.C. Professional Land Surveyor (PLS).
- (b) The CONTRACTOR shall take appropriate means to protect existing property corner markers found by the DISTRICT's surveyor during location and right of way surveys, as shown on the construction plans or right of way acquisition maps, or if found during construction and not shown on the Plans.
- (c) Where construction proposes to disturb these markers, the CONTRACTOR shall replace the existing markers in accordance to the provisions of this section.
- (d) Existing fences and posts identifying existing property lines and corners, shall be re-located by a PLS.

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- (e) It is the intent of this requirement that the property owner's corner marker be replaced, as near possible, to the location it occupied prior to construction and that the Surveyor certify that, to the best of his ability and belief, he has done so. It is not the intent of this requirement that the Surveyor provide a certified survey of the property or to certify that the marker set is the property owner's actual property corner.

10.04 Advance Notice of Street Closures

- (a) When a major road or street will be continuously closed for more than one day, the CONTRACTOR shall post a conspicuous sign along each entrance to the road at least **two weeks** in advance of the closure. The sign shall state that the road will be closed beginning on a certain day and shall also state the expected date of re-opening.
- (b) The sign shall be fabricated in accordance with the North Carolina Construction and Maintenance Operations Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways, or in accordance with the requirements of the owner of the Right-of Way.
- (c) Local traffic shall be maintained at all times in accordance with these Specifications. No separate payment will be made for this requirement.

10.05 Street Cut and Street Closure Permits

- (a) The CONTRACTOR shall obtain street cut permits for public streets, as may be applicable to work done on this project. The cost of securing any and all Street Cut Permits shall be included in the various items bid. A copy shall be submitted to the DISTRICT prior to commencement of the Work. The CONTRACTOR shall also obtain any required permits for the closure of public streets. No separate payment will be made for this requirement

10.06 Traffic Control and Traffic Routing Plan

- (a) Where the Work encroaches upon the right-of-way of any public highway or street, the CONTRACTOR shall make all arrangements and necessary scheduling with the owner of the right-of-way for the actual construction work and shall perform the work on or across the right-of-way in the manner and at the time agreed upon with the owner of the right-of-way, and shall pay the costs thereof, including the costs, if any, of temporary construction performed by the highway or street owner as a means of providing safe and continuous operation of its facilities during the construction period. The CONTRACTOR shall take extra precautions for the safety of the work, the owner's facilities and the general public as may be necessary by sheeting, bracing and thoroughly supporting the sides of the excavation and supporting and protecting any adjacent structures.

- (b) Various areas of construction may require closure of streets to through traffic for limited periods. Through traffic shall be detoured. Local traffic shall be maintained at all times. All drives to residences and businesses shall be maintained passable or temporary drives constructed around the work area. All traffic control devices shall be in accordance with current edition of The Manual on Uniform Traffic Control Devices for Streets and Highways. Any supplemental information or manuals published or provided by NCDOT shall be approved by the NCDOT Division Traffic Engineer prior to closure of any section of street or highway.

Where work in City or Town streets requires closure, prior approval of traffic control devices shall be obtained from the Owner of the right-of-way. In addition, the appropriate Fire Department, Police Office, and School System shall be notified by the CONTRACTOR any time that any street requires closure. The CONTRACTOR shall maintain all traffic control devices in a clean and highly visible state in good working order and shall provide the necessary traffic control devices and flagmen as required by NCDOT, or the owner of the right-of-way. All signs shall be of the size, dimensions and construction as required by the Manual on Uniform Traffic Control Devices and the NCDOT Division Traffic Engineer. No separate payment will be made for this requirement.

10.07 Traffic Control Signs

- (a) The State of North Carolina Department of Transportation requires that construction sites within State rights-of-way have signs fabricated in accordance with the AASHTO Manual on Uniform Traffic Control Devices for Streets and Highways and with the North Carolina Construction and Maintenance Operations Supplement to the AASHTO manual. Copies of the NC Sign Supplement manual may be obtained from the N.C. Department of Transportation, Division of Highways, Raleigh, N.C. 27611. No separate payment will be made for signs provided or fabricated to meet this requirement.
- (b) Work within the jurisdiction of local governments shall comply with the signing requirements of the appropriate local government as well as those set forth in the Uniform Traffic Control Manual and the NC Sign Supplement. In case of a conflict between the local regulations and the AASHTO/NC manuals, the more restrictive of the regulations shall control. No separate payment will be made for signs provided or constructed to meet this requirement.

10.08 Tree Permits – City of Asheville

- (a) Tree Permits shall be obtained from the City of Asheville Parks and Recreation Department prior to any work on City Street rights-of-way. This pertains to any trimming of limbs or removal of trees on this project for trees located within City

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Rights-of-Way. See also Article 6.11, “Tree Protection Guidelines”. No separate payment will be made for this requirement.

10.09 Tree Protection Guidelines

1. **Root Protection** – Feeding tree roots are located within the top 12 inches – 18 inches of soil. Care should be taken not to disturb the roots located within the dripline of the tree. This includes vehicle and equipment movement within this area. Delicate root hairs are broken when heavy machinery is moved across the rooting zone located within the dripline of the tree. It is best to completely barricade the dripline area to prevent damage to the root hairs. No debris, supplies, equipment, or soil should be stored in the area and should be treated as off limits.
2. **Trunk Protection** – If the dripline area is breached then appropriate steps should be taken to ensure the trunk is left unscarred. Boards may be used TIED vertically around the trunk to provide protection to the main stem.
3. **Limb Protection** – If the tree is in a position where a limb will be broken the course of work performed the limb should be removed before it becomes damaged. Some limbs may be tied up to upper limbs to prevent damage to the low lying limbs. Care should be taken not to put too much stress on the limbs.
4. **Root Damage** – If during the course of the prescribed work roots are damaged, the root should be pruned cleanly with a sharp saw or lopper at an angle behind the damaged area. This includes both small and large roots. NO wound protectants or dressings should be used on root cuts.
5. **Trunk Wounds** – If during the course of the prescribed work, the trunk protection fails and a wound occurs on the main stem, remove only the loose bark until clean. DO NOT use a wound dressing on any tree other than a *Quercus alba* – White Oak. Wound dressings are no longer recommended for scarred areas except on White Oak.
6. **Limb Damage** – If during the course of the prescribed work limbs are damaged or broken, the loose bark should be removed and the damage assessed. If there are cracks in the wood behind the damage and the cracks are significant then prune if possible to the next lateral branch towards the trunk. If this is not possible, remove the entire limb or branch. Wound dressings again should only be used on wounds on White Oak.

10.10 Erosion Control Violations and Fines

- (a) If required by State Statutes, the DISTRICT shall submit an Erosion Control Plan

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and Application to NCDENR and shall obtain an Erosion Control Permit from said agency on this project. The CONTRACTOR shall be responsible for installation and maintenance of all erosion control measures as shown on the approved Plans and as required in North Carolina Administrative Code Title 15A Chapter 4 and NCGS 113A.

- (b) If a fine is assessed against the DISTRICT due to one or more of the following reasons, the CONTRACTOR shall be responsible for payment of such fine(s):
 - (1) Non-compliance with the approved Erosion Control Plan.
 - (2) Failure to follow the approved Erosion Control Plan.
 - (3) Failure to properly install and/or maintain erosion control measures as required in the Plans.
 - (4) Failure to install adequate ground cover.
 - (5) Failure to correct deficiencies cited in a NCDENR Notice of Violation (NOV) letter within 7 working days of such notice when such corrections are authorized by the ENGINEER.
 - (6) Any other citation, for items that should have been the CONTRACTOR's responsibility to construct, install, and/or maintain.
- (c) At the discretion of the DISTRICT, the dollar value of any fine levied by NCDENR against the DISTRICT on a project for which the CONTRACTOR is responsible, may be withheld from any payment due the CONTRACTOR until the CONTRACTOR has paid to the DISTRICT the amount of such fine or has negotiated with NCDENR officials to release the DISTRICT from any and all obligations to pay such fines or any portion thereof.
- (d) The CONTRACTOR's attention is hereby called to other sections of MSD's Project Plans and Specifications referring to Erosion Control measures, devices, and requirements.

10.11 Soil Density Tests

- (a) As specified in Technical Specifications, Backfilling Trenches, compaction tests shall be made by a commercial testing laboratory in areas designated by the ENGINEER. Should any test fail, the costs of any subsequent test(s) shall be at the expense of the CONTRACTOR. Copies of test results shall be forwarded to the ENGINEER. Compaction tests shall be made in each trench extending across paved highways and at a maximum spacing of 200 feet where trenches are along highways and streets.

10.12 Landscape Plantings

- (a) The CONTRACTOR shall provide or replant trees, shrubs, and other landscape plantings which have been moved or disturbed as a result of sewer construction, in

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accordance with the Special Provisions Detail Sheets included herein or as shown on the Plans. The CONTRACTOR is directed to note that the one year project warranty applies to plantings. Payment for this item will be considered included in the unit price items for sewers, unless shown otherwise in the Bid Schedule.

10.13 Storm Drain Piping

- (a) Reinforced concrete storm drain pipe shall comply with the requirements of ASTM Specification C76, except as modified herein. Reinforced concrete storm drain pipe shall be Class III, unless otherwise shown on the plans. Wall thickness shall be "Wall B" in sizes 36 inches and smaller and "Wall C" in sizes 42 inches and larger. Joints shall be sealed with grout consisting of one part Portland Cement and two parts sand by volume. The quantity of water used in the mixture shall be sufficient to produce a stiff, workable mortar but shall in no case exceed five and one half (5.5) gallons per sack of cement. Sand shall conform to Specification M-85 of the American Association of State Highway and Transportation (AASHTO) Officials.
- (b) The pipe shall be thoroughly cleaned and wetted with water before the joint is made. Stiff mortar shall then be placed in the lower half of the groove of the pipe section already laid. Mortar shall be applied to the upper half of the tongue of the pipe section being laid. The tongue end of this pipe shall be inserted in the groove end of the pipe already laid, the joint pulled up tight taking care to see that the interior surfaces of the adjoining pipe sections are flush and even. Sufficient mortar shall be used to fill the joints of tongue and groove pipe to fill the joint completely and to form a bead on the outside of the pipe. Concrete used in the manufacture of pipe shall have an absorption rate not to exceed 6.0 percent. Steel reinforcement shall be circular. Materials used in the manufacture of concrete sewer pipe shall comply with the following ASTM Specifications: Portland Cement C150, Type II or C, Type II A, or C205 for Blast Furnace Slag Cement; Aggregates, C33 except that the fine aggregate shall be natural silica sand. Manufactured sand shall not be used. Coarse aggregates shall be crushed limestone. Each joint of pipe shall have stamped thereon the class of reinforcement and the wall thickness designation.
- (c) Corrugated steel storm drain pipe (or "CMP") shall comply with the requirements of ASTM Specification A444, and shall be zinc coated in conformance with AASHTO Specification M128. Corrugated steel pipe shall be asphalt coated with a minimum thickness of 0.05-inches of high purity asphalt in accordance with AASHTO Specification M190 and shall have a paved invert covering the bottom quarter of the pipe with a minimum cover of 1/8-inch over the corrugations. Pipe ends shall be reformed with reformed ends covering two full corrugations. Field joints shall be made with bolted corrugated bands. Connecting bands shall be zinc and asphalt coated as above described. Bolts shall be asphalt coated in the field after joints are made up. Fifteen (15)-inch and eighteen (18)-inch diameter

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CSP shall be 16 gauge, twenty-four (24)-inch diameter shall be 14 gauge, and thirty (30)-inch diameter shall be 12 gauge.

10.14 Fence Replacement

- (a) All fences crossed by the sewer line shall be replaced promptly after backfilling the trench. Fences shall be replaced with the same type of materials, and in the same location, as existed prior to construction. All materials shall be new and of good quality. If the CONTRACTOR has been able to remove the existing fence without damaging the materials, he may reuse these materials in replacing the fence, upon the approval of the ENGINEER. Replacement of existing fences is incidental to sewer construction, and no extra payment will be made therefore.

10.15 References to NCDOT Specifications

- (a) References have been made to Standard Specifications for Road and Structures of the N.C. Department of Transportation in order to allow the CONTRACTOR to utilize structures, materials, and construction methods conforming to N.C. Department of Transportation Requirements.
- (b) In the event of a conflict between the Standard Specifications for Road Structures of the N.C. Department of Transportation and these Special Conditions, General Conditions, and/or Technical Specifications, the provisions of these documents shall govern over N.C. Department of Transportation Specifications.
- (c) Standard Specifications for Road Structures of the N.C. Department of Transportation shall not be utilized for any basis of payment or compensation.

10.16 Maintenance of Sewer System

- (a) The CONTRACTOR shall furnish all necessary labor, pumping equipment, including standby pumps, temporary piping, temporary connections, and miscellaneous materials and supplies to satisfactorily contain the wastewater within the sewerage system during construction.
- (b) The CONTRACTOR shall satisfy himself as to the work and equipment necessary to maintain wastewater flow within the system during construction and to prevent spillage to the ground or to surface waters. See also Section 2.19 of the Technical Specifications.
- (c) The CONTRACTOR shall submit a plan for review to the ENGINEER, detailing how the CONTRACTOR will handle the sewage flow during construction. This plan must be approved by the ENGINEER prior to any work being performed on the project.

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- (d) No separate payment will be made for the temporary measures which are used to contain the wastewater within the sewer system. Payment for this work be considered included in the unit price items for sewers.

10.17 Field Orders

- (a) Minor miscellaneous repairs executed by the CONTRACTOR at the instructions of the ENGINEER on work already completed and for which the CONTRACTOR is repairing or replacing due to no fault of his own shall be paid for on a time and materials basis. Copies of field orders authorizing the above work shall be brought to the monthly progress meetings at which time reimbursement for the work will be agreed upon for submittal with the subsequent monthly payment request. Time charges for all laborers and equipment shall be agreed upon prior to submittal of pay request and shall remain constant throughout the project.

10.18 Change Orders

- (a) In general, work requiring the issuance of a Contract Change Order shall commence only after the Change Order has been fully executed by the DISTRICT and then only upon proper notice to proceed. Reimbursement for the work will be mutually agreed upon prior to the issuance of a Change Order.

10.19 Project Closeout

- (a) Final Documentation - Prior to final payment, and before the issuance of a final certificate for payment in accordance with the provisions of the General Conditions, the CONTRACTOR shall file with the DISTRICT the documents listed hereinafter.
- CONTRACTOR's Certification of Completion - MSD Form
 - Release of Waiver of Liens – MSD Form
 - Consent of Surety to Final Payment from Insurance Company
 - Sales Tax Record - The CONTRACTOR shall provide to the DISTRICT a certified statement listing all invoices, invoice number, vendor, total amount of invoice, State tax, County tax, and City tax.
 - Project Record Documents - Record documents shall be as specified in General Conditions.
 - Guarantees - The guarantee required by the General Conditions and all other guarantees stated in the Specifications.
- (b) The above records shall be arranged in order, in accordance with the various sections of the Specifications, and properly indexed. At the completion of the work, the CONTRACTOR shall certify by endorsement thereof that each of the revised and marked-up prints of the Drawings and Specifications is complete and accurate.

- (c) No review or receipt of such records by the DISTRICT shall be a waiver of any change from the Contract Documents or the shop drawings, or in any way relieve the CONTRACTOR of his responsibility to perform the work as required by the Contract Documents, and the shop drawings to the extent they are in accordance with the Contract Documents.